

CLAIMS

1. A pressure-sensitive adhesive sheet comprising a base material, and a pressure-sensitive adhesive layer laminated on said base material, the pressure-sensitive adhesive sheet characterized in that:

gas-passing channels that communicate to the outside of the pressure-sensitive adhesive sheet are formed in at least the pressure-sensitive adhesive layer side of said base material;

a plurality of through holes passing through said pressure-sensitive adhesive layer in a thickness direction are formed in said pressure-sensitive adhesive layer;

said gas-passing channels in said base material and said through holes in said pressure-sensitive adhesive layer communicate with one another; and

said through holes in said pressure-sensitive adhesive layer are formed so as to have a prescribed diameter through gas from holes in a release liner laminated onto a pressure-sensitive adhesive surface of said pressure-sensitive adhesive layer passing through said pressure-sensitive adhesive layer, said through holes being formed not randomly but rather in prescribed positions in said pressure-sensitive adhesive layer.

2. The pressure-sensitive adhesive sheet according to claim 1, characterized in that said through holes in said pressure-sensitive adhesive layer have a diameter of 0.1 to 2000 μm , and a number density of 30 to 100,000 per 100 cm^2 .

3. The pressure-sensitive adhesive sheet according to claim 1 or 2, characterized in that a release liner is laminated onto a pressure-sensitive adhesive surface of said pressure-sensitive adhesive layer, and a plurality of bottomed holes that open out on a release treated surface side of said release liner are formed in said release liner in prescribed positions at a prescribed number density.

4. A method of manufacturing a pressure-sensitive adhesive sheet, characterized by:

manufacturing a release liner having a plurality of bottomed holes that open out on a release treated surface side thereof formed therein in prescribed positions at a prescribed number density;

forming a pressure-sensitive adhesive layer on said release treated surface of said release liner, and making gas from said holes in said release liner move to the outside of said pressure-sensitive adhesive layer, to form in said pressure-sensitive adhesive layer so as to have a prescribed diameter a plurality of through holes passing through said pressure-sensitive adhesive layer in a thickness direction; and

laminating said pressure-sensitive adhesive layer onto one surface of a base material having gas-passing channels that communicate to the outside of the pressure-sensitive adhesive sheet formed in at least said one surface thereof, such that said gas-passing channels in said base material and said through holes in said pressure-sensitive adhesive layer communicate with one another.

5. The method of manufacturing a pressure-sensitive adhesive sheet according to claim 4, characterized in that a support of said release liner is made of a material containing air and/or moisture.

6. The method of manufacturing a pressure-sensitive adhesive sheet according to claim 5, characterized in that a gas barrier layer is formed in advance on a non-release treated surface side of said support of said release liner.

7. The method of manufacturing a pressure-sensitive adhesive sheet according to any of claims 4 through 6, characterized in that said holes in said release liner have a diameter of 0.1 to 2000 μm , and a number density of 30 to 100,000 per 100 cm^2 .

8. A release liner characterized by having a plurality of bottomed holes that open out on a release treated surface side thereof formed therein in prescribed positions at a prescribed number density.

9. The release liner according to claim 8, characterized in that said holes are formed by hole formation processing carried out from said release treated surface side of said release liner or a side of one surface of a support of said release liner so as not to pass through said release liner or said support.

10. The release liner according to claim 8 or 9, characterized in that said holes have a diameter of 0.1 to 2000 μm , and a number density of 30 to 100,000 per 100 cm^2 .

11. A method of manufacturing a release liner, characterized by comprising a step of carrying out hole formation

processing from a release treated surface side of a release liner or a side of one surface of a support of said release liner so as not to pass through said release liner or said support, thus forming a plurality of bottomed holes that open out on said release treated surface side or said side of said one surface in prescribed positions at a prescribed number density.

12. The method of manufacturing a release liner according to claim 11, characterized in that said support of said release liner is made of a material containing air and/or moisture.

13. The method of manufacturing a release liner according to claim 12, characterized in that a gas barrier layer is formed in advance on a non-release treated surface side of said support of said release liner.

14. The method of manufacturing a release liner according to any of claims 11 through 13, characterized in that said holes in said release liner have a diameter of 0.1 to 2000 μm , and a number density of 30 to 100,000 per 100 cm^2 .